

FIVE NEW SPECIES OF DICYPHUS FROM WESTERN
NORTH AMERICA AND ONE NEW CYRTOPELTIS

(Hemiptera, Miridae)

BY HARRY H. KNIGHT

*Iowa State College, Ames, Iowa***Dicyphus brachypterus** Knight, new species

Male. Length 2.55 mm., width .75 mm. Head: width .48 mm., vertex .23 mm.; black, shining, a pale lunule extending from postero-dorsal angle of eye to near middle of vertex. Rostrum, length 1.04 mm., extending to tips of middle coxae, pale yellowish, apex fuscous. Antennae: segment I, length .26 mm., pale, fuscous on base; II, .86 mm., cylindrical, pale, base and more broadly on apex, blackish; III, 1.0 mm., pale, apical half fuscous; IV, .49 mm., fuscous. Pronotum: length .47 mm., width at base .60 mm.; calli convex, posterior margins moderately impressed; basal margin of disk concavely arcuate, basal angles moderately rounded, black, shining, collar white. Scutellum slightly convex, transversely rugulose, mesoscutum moderately exposed, black. Hemelytra abbreviated, reaching to middle of abdomen, membrane reduced, scarcely extending beyond tip of cuneus, pale; pallid, subtranslucent, a fuscous cloud covering tip of clavus and apical half of corium. Body black, moderately shining, clothed with fine pale to yellowish pubescence. Legs pale, base of coxae blackish, apical half of femora slightly dusky, tibial knees and tips of tarsi fuscous.

Female. Length 3.11 mm., width .92 mm. Head: width .58 mm., vertex .32 mm. Antennae: segment I, length .26 mm.; II, .71 mm., less than one and one-half times the width of head; III, .82 mm.; IV, .39 mm. Pronotum: length .57 mm. width at base .74 mm. Hemelytra short, membrane extending slightly beyond tip of cuneus, pallid, subtranslucent, a fuscous cloud covering apical half of corium and apical one-fourth of clavus. Color very similar to the male, but with a pale spot between calli and extending slightly on pronotal disk.

Holotype: male, August 14, 1931, Mt. Rainier, Washington (H. H. Knight); author's collection. *Allotype*: same data as the type. *Paratypes*: 2 males and 6 females, taken with the types on *Polemonium humile* R. & S. This species was found on the same plants with *Macrotylus polemonii* Kngt.

Dicyphus usingeri Knight, new species

Distinguished from allied species by the large size, green to yellowish coloration, with first antennal segment black.

Male. Length 5 mm., width 1.2 mm. Head, width .60 mm., vertex .32 mm.; frons strongly convex, tylus prominent; eyes rather small, width .19 mm., height .28 mm.; yellowish green. Rostrum, length 1.90 mm., reaching to middle of hind coxae, greenish yellow, apex blackish. Antennae: segment I, length .47 mm., blackish, apex and narrow base yellowish; II, 1.82 mm., slender, slightly thicker apically, thickly clothed with suberect, fuscous pubescence, yellowish, base and apex fuscous to black; III, 1.90 mm., slender, blackish; IV, .60 mm., blackish. Pronotum: length .65 mm., width at base .99 mm.; calli moderately convex, posterior margins not deeply impressed, posterior half of disk rather flat, basal margin straight; yellowish green, basal edge of disk infuscated. Scutellum moderately convex, greenish yellow, apex dusky; mesoscutum moderately exposed. Hemelytra subtranslucent, pale to yellowish, apex of corium with a small fuscous cloud; cuneus clear, tinged greenish, apex dark fuscous to blackish; membrane nearly clear, venis pale fuscous. Dorsum clothed with suberect, moderately close-set, dusky to fuscous pubescence. Ventral surface yellowish to green, fading in old specimens. Legs greenish yellow, tarsi and tibial knees fuscous to black; tibial spines blackish. Left genital clasper subtriangular on basal half, convex on lateral aspect, apical half flattened, blade-like, directed vertically, apex acuminate; right clasper not visible externally.

Female. Length 4.5 mm., width 1.17 mm. Head: width .58 mm., vertex .34 mm. Antennae: segment I, length .43 mm.; II, 1.43 mm.; III, 1.34 mm.; IV, .56 mm. Very similar to the male in general form, color and pubescence.

Holotype: male, June 20, 1926, Fresno, California (C. J. Drake); author's collection. *Allotype*: taken with the type. *Paratypes*: female, taken with the types. CALIFORNIA: 10 males and 14 females, July 20, 1928, Oakland Rec. Camp, Tuolumne County; 4 males and 14 females, July 23, 1932, nr. Camino, El Dorado County (R. L. Usinger). One male, May 21, 1930, Mokelumne Hill, Calaveras County; a male and a female, July 20, 1931, Coffee Creek, Trinity County (R. L. Usinger). Breeds on Mountain Misery (*Chamaebatia foliosa* Benth.) according to Dr. Usinger.

Dicyphus rivalis Knight, new species

Allied to *usingeri* but differs in having smaller eyes, the calli more strongly convex, and first antennal segment greenish.

Female. Length 5.5 mm., width 1.5 mm. Head: width .64 mm., vertex .39 mm.; frons strongly convex, higher than base of head; eyes small, width .173 mm., height .25 mm.; color greenish yellow. Rostrum, length 2 mm., extending to middle of hind coxae, yellow-

ish, apex fuscous. Antennae: segment I, length .50 mm., greenish yellow, fuscous beneath on basal half; II, 1.73 mm., slender, cylindrical, yellowish, blackish at base, infuscated just before apex; thickly clothed with suberect, yellowish pubescence; III, 1.78 mm., yellowish, dusky to fuscous apically; IV, .64 mm., fuscous. Pronotum: length .78 mm., width at base 1.08 mm., calli strongly convex, posterior margin moderately impressed; posterior half of disk moderately convex, basal margin moderately concavely arcuate, posterior angles broadly rounded. Scutellum moderately convex, mesocutum rather broadly exposed, both uniformly greenish yellow. Hemelytra subtranslucent, pale yellowish, tip of cuneus fuscous; membrane nearly clear, veins greenish, infuscated at apex of cells. Dorsum clothed with suberect, moderately close set, yellowish pubescence. Ventral surface uniformly greenish yellow. Legs greenish yellow, tibial knees black, tips of tarsi fuscous, tibial spines yellowish.

Holotype: female, June 16, 1930, Forest Grove, Oregon (Joe Schuh); author's collection. *Paratype*: female, September 16, Kaslo, British Columbia. CALIFORNIA: female, July 28, 1931, Coffee Creek, Trinity County (R. L. Usinger), on *Ribes*.

Dicyphus tinctus Knight, new species

Allied to *rufescens* Van D., but distinguished by the red pronotum and scutellum, cuneus clear without black apex, tibiae and abdomen pallid.

Female. Length 4.33 mm., width 1.2 mm. Head; width .62 mm., vertex .35 mm.; fuscous to black, a pale spot above each eye on vertex. Rostrum, length 1.47 mm., reaching to near apex of middle coxae, pale, apex fuscous. Antennae: segment I, length .32 mm., pale to dusky; II, 1.05 mm., cylindrical, pale to dusky, fuscous at base; III, 1.12 mm., pale to dusky, apical one-third fuscous; IV, .47 mm., pale to dusky. Pronotum: length .65 mm., width at base .99 mm.; basal margin rather deeply and broadly concave, calli rather strongly convex; color bright red, coxal cleft surrounded by fuscous. Scutellum and mesonotum bright red, the latter rather broadly exposed. Hemelytra pale translucent, apical half of clavus, inner and apical margins of corium, bright red. Cuneus uniformly clear, inner edge by smaller areole with a streak of red. Membrane nearly clear, tinged with brownish, veins light fuscous. Dorsum clothed with fine, rather short, suberect pale pubescence. Venter pale, a series of dark spots on lateral margins; mesosternum, metapleura and ostiolar peritreme, dark fuscous to black. Legs pale to yellowish, spot on base of front coxae, a series of obsolete spots on anterior face of hind femora, and tips of tarsi, fuscous.

Holotype: female, August 10, 1932, Lodgepole Camp, Rainier National Forest, Washington (A. R. Rolfs); author's collection.

Paratypes: 4 females, taken with the types.

Dicyphus hesperus Knight, new species

Allied to *discrepans* Knegt., but the male differs in structure of the left genital clasper; lateral aspect of clasper triangular in outline and without a notch on dorsal margin near base; female distinguished by the black first antennal segment.

Male. Length 3.55 mm., width 1.03 mm. Head: width .52 mm., vertex .23 mm.; black, shining, vertex bordering eyes and dorsal aspect of neck except median line, pallid. Rostrum, length 1.47 mm., extending beyond posterior coxae or to base of fourth ventral segment, pale yellowish, apex fuscous. Antennae: segment I, length .26 mm., reddish brown to black, shining, yellow pubescent; II, .86 mm., yellowish, apical one-third dark reddish to black, basal half more slender, pale yellowish pubescent; III, .52 mm., dark fuscous, pale at base; IV, .34 mm., fuscous. Pronotum: length .49 mm., width at base .82 mm.; collar flat, broad, sinuate above, pale; calli convex, smooth, shining, basal margin delimited by an impressed line; disk flaring upward over mesonotum, basal margin broadly, concavely arcuate, basal angles widely rounded; propleura fuscous to black, calli brownish, disk dusky brown, median line pale. Mesoscutum broadly exposed, fuscous, pale spot at each side; scutellum pallid, broad median line reddish brown to black. Dorsum clothed with yellowish to fuscous pubescence, with more erect fuscous hairs on pronotum and scutellum. Hemelytra subtranslucent, in part dusky brown, tinged with reddish along claval suture, sometimes more broadly; spot on tip of embolium and one on corium bordering cuneus, fuscous to black. Cuneus clear, apex fuscous to blackish, often tinged reddish. Membrane clear, apical half lightly infuscated, veins fuscous. Venter and thorax brownish black. Legs pale to yellowish, coxae fuscous on base; femora with a few fuscous dots arranged in rows, front femora with spots on posterior aspect while hind femora have spots on front and posterior aspects; tibiae with yellowish hairs only, tips of tarsi fuscous. Left genital clasper triangular as viewed from the side, without notch above, apical half slender, apex flattened and curved; right clasper apparently absent.

Female. Length 3.5 mm., width 1.0 mm. Head: width .56 mm., vertex .22 mm. Antennae: segment I, length .26 mm.; II, .73 mm.; III, .58 mm.; IV, .30 mm. Very similar to the male in form and coloration.

Holotype: male, April 19, 1933, Moscow, Idaho (T. A. Brindley); author's collection. **Allotype:** same data as the type. **Paratypes:** 2 males and 3 females, taken with the types in mullein (*Verbascum*) where this insect may hibernate. CALIFORNIA: 2 males, and 2 females, July 4, Arbolado, on *Stachys albens*; 2 males and 2 females, May 7, San Gabriel River; male and 3 females, May 16, 1935, Whittier, on *Verbascum virgatum* (E. L. Paddock). One female, June 12, 1918, San Diego (C. L. Hubbs). Two males and 2 females, June 1, 1940, Dark Canyon, Riverside County (R. L. Usinger), "on thimbleberry"; 2 males and 2 females, June 2, 1915, Mission Canyon, Santa Barbara (Harold Morrison). Eight males and females, August 15, 1914, Ramona (J. C. Bradley). COLORADO: 2 females, July 16, 1898, Little Beaver; female, June 18, 1901, Palmer Lake (E. D. Ball). IDAHO: 5 females, Nov. 17, 1933, Boise (C. Wakeland). Six males and females, May 23, 1936, Genesee (T. A. Brindley). Male and female, April 22, male and female, May 30, 1933, Lewiston (T. A. Brindley). Five males and females, July 10, 1936, Lewiston (F. B. Conn). Male, March 31, male and female, April 4, male and female, April 18, 5 males and females, April 14, male and female, May 7, female, Oct. 20, 1932-1938, Moscow (T. A. Brindley). Five males and females, Mar. 17, 1934, Moscow (H. G. Bergen). Seven males and females, Mar. 18, 1934, Moscow (H. Shipman). Male, May 10, 1936, Moscow (R. E. Miller). Male July 10, male July 24, 2 females August 8, 1936 Moscow (B. F. Conn). Male May 17, male and female June 18, 1936, Moscow Mountain (T. A. Brindley). Nine males and females, Aug. 4, 1936, Moscow Mountain (Shull and Coon). MONTANA: Male, August 1, 1920, Missoula (A. A. Nichol). NORTH DAKOTA: female, Bottineau, Turtle Mountains (C. N. Ainslie). OREGON: female, May 27, 1930, Corvallis (H. A. Scullen). Male, July 3, 1926, Le Grande (E. W. Davis). UTAH: female, June 13, 1940, Mt. Timpanogos, alt. 6,800 ft. (C. L. Hayward). WASHINGTON: male and female, April 18, 1930, Clarkston (H. Woods), on tomato. Two females, July 9, 1937, Dayton (R. E. Miller). Five males and females, Nov. 21, 11 males and females, Dec. 11, 1925, Toppenish (E. W. Davis). Two males May 4, 1 male Aug. 29, 1 male Sept. 20, 1932, Yakima (A. R. Rolfs).

Cyrtopeltis bakeri Knight, new species

Distinguished from allied species by the black prothorax, short second antennal segment, and by the antepical black spot on cuneus.

Female. Length 3.7 mm., width 1.2 mm. Head: width .57 mm., vertex .28 mm.; rather short, eyes large (width .22 mm., height .30 mm.), black, a triangular pale spot at top of eye on vertex. Rostrum, length 1.35 mm., extending to tips of middle coxae, pale, apex blackish. Antennae: segment I, length .25 mm., black, narrow apex pale; II, .69 mm., cylindrical, slightly more slender toward base, clothed with fine yellowish pubescence, pale yellowish, base blackish, apex fuscous; III, .68 mm., pale to dusky; IV, .38 mm., dusky. Pronotum: length .58 mm., width at base .95 mm.; black, basal margin broadly, concavely sinuate, lateral margins slightly sinuate, rounding over to the propleura; calli very slightly convex, margins not impressed, on a level with the broad basal half of disk; collar flat to slightly convex. Dorsum clothed with short, suberect, pale pubescence. Mesonotum moderately exposed, black, brownish at each side; scutellum moderately convex, black. Hemelytra subtranslucent in pale areas; clavus except basal angles, and inner apical area of corium uniformly dark fuscous; cuneus clear, apical half with a central, triangular black spot which leaves the apex broadly and narrow lateral margins clear. Membrane uniformly pale fuscous, basal half darker, a small clear spot by apex of cuneus. Thorax and venter black, legs yellowish, bases of coxae and tips of tarsi blackish; pubescence yellowish, tibial spines fuscous.

Male. Length 3.64 mm., width 1.04 mm. Head: width .56 mm., vertex .26 mm. Antennae: segment I, length .21 mm., fuscous, apical half paler; II, .69 mm., fuscous, becoming pale on apical half. Pronotum: length .54 mm., width at base .90 mm. Color and pubescence very similar to that of female. Genital segment twisted to the left side so that left genital clasper appears to arise on median ventral line of segment; left clasper sickle-shaped, the apex slightly broader and pointing to the left side; right clasper minute or absent.

Holotype: female, September 10, 1931, Sunrise, alt. 6,380 ft., Mt. Rainier, Washington (Wm. W. Baker); author's collection. *Allotype*: male, May 5, 1935, Alsea Mountain, Oregon. *Paratypes*: OREGON: male, April 21, 1935, Tidewater (Joe Schuh). WASHINGTON: female, July 9, 1930, "Wen. Mts."; female, Aug. 31, 1930, Yakima; female, Aug. 15, 1932, Tampico (A. R. Rolfs). BRITISH COLUMBIA: 2 males and 1 female, Aug. 9, 1905, Downie Creek, Selkirk Mts. (J. C. Bradley).